

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims

1. (Currently Amended) A computer system ~~in which one or more~~ having a first operation sites, a second site having a storage device subsystem and a third operation site ~~having a storage device subsystem that~~ are mutually connected through a network, wherein:
each said operation site includes a host and a storage device subsystem and a copy management program that operates in the host ~~host, and copy management information;~~
~~said copy management information that~~ includes state information that is used by the copy management program to execute a remote copy processing from the storage device subsystem of said first operation site to the storage device subsystem of the second site and to the storage device subsystem of said third operation site;
said copy management information is stored in a storage device of said a storage device subsystems of each said operation site and said second site ~~included in this computer system,~~ and is updated every time a remote copy is executed;
wherein when a failure occurs in the first said operation site, the copy management information stored in the storage device subsystems is referred by use of said copy management program that operates in a host included in said third operation site to execute

copying from a point at which copy processing had progressed before the failure.

2. (Canceled)

3. (Currently Amended) A computer system according to Claim 1, wherein:

said storage device subsystems ~~can~~ make an inter-subsystem copy of data stored in a storage device between the storage device subsystems of the first operation site and the second site, and the second site and the third operation site, and ~~can also make an~~ intra-subsystem copy of data stored in a storage device in the storage device subsystem of the second site and in a storage device of a storage device subsystem in the third operation site.

4. (Currently Amended) A computer system according to Claim 3 ~~Claim 1~~, wherein:

said copy management information includes state information about the inter-subsystem copy, state information about the intra-subsystem copy, and time stamp information about the time at which this copy management information is written.

5. (Canceled)

6. (Currently Amended) A failure recovery method for a computer system in which at least first and other ~~one or more~~ operation sites each having a host and a storage device subsystem and a second site having a storage device subsystem are mutually connected through

a network, said failure recovery method comprising the steps of:

using, ~~by the~~ at the first operation site, a copy management program, which operates in ~~a the~~ host, to remote-copy data stored in a storage device of ~~a the~~ storage device subsystem included in the first operation site to a storage device of a storage device subsystem included in the second site and each of the other operation sites;

every time copy processing is performed, reflecting, by the first operation site, a state of the remote copy in copy management information stored in the storage device of the storage device subsystem included in the first operation site; and

every time copy processing is performed, reflecting, ~~by to the second site and~~ each of the other operation sites, a state of the remote copy in the copy management information stored in the storage device of the storage device subsystem included in said second site and each of the other operation sites,

wherein when a failure occurs at the first operation site, the copy management information stored in the storage device of the storage device subsystem included in the second site and each of the other operation sites is referred by use of a copy management program that operates in a host included in one of the other operation sites to execute copying from a point to which the copy processing had progressed before the failure.

7. (Canceled)

8. (Currently Amended) A failure recovery method for a computer system according to

Claim 6, wherein:

said step of remote-copying from the first operation site comprises inter-subsystem copying of data in a storage device which is performed between the storage device subsystems of the first operation site and the second site, and between storage device subsystems of the second operation site and other operation sites, and intra-subsystem copying of data in a storage device which is performed in the storage device subsystems of any of the first operation site, second site and other operation sites; and

said copy management information includes state information about each of the inter-subsystem ~~copy~~copies and the intra-subsystem ~~copy~~copies.

9. (Currently Amended) A computer system in which one or more production sites, and a local site consisting of only a storage device subsystem, ~~or~~ and a remote site including a host and a storage device subsystem which are connected to each other, are connected through a network, wherein:

said production site comprises a host and a storage device subsystem;

a disk unit of the storage device subsystem of the production site stores a copy management program and copy management information;

said copy management information includes state information ~~corresponding to each processing~~ of a remote copy, said state information being used by the copy management program to execute the remote copy;

said copy management information is also kept in a storage device subsystem included

in the local site ~~or~~ and in a storage device subsystem included in the remote site;

when making a remote copy from a storage device subsystem ~~in this computer system~~ by use of the copy management program, a host included in the production site updates copy management information ~~for each processing of~~ the remote copy by synchronizing copy management information included in the local site ~~or~~ and the remote site with copy management information in the production site; and

when a failure occurs in the production site ~~fails~~, the copy management information stored in the storage device of the storage device subsystem included in the local site ~~or~~ and in the remote site is referred by use of a copy management program that operates in a host included in ~~another~~ the remote ~~production~~ site to execute copying from a point to which the copy processing had ~~has~~ progressed before the failure.